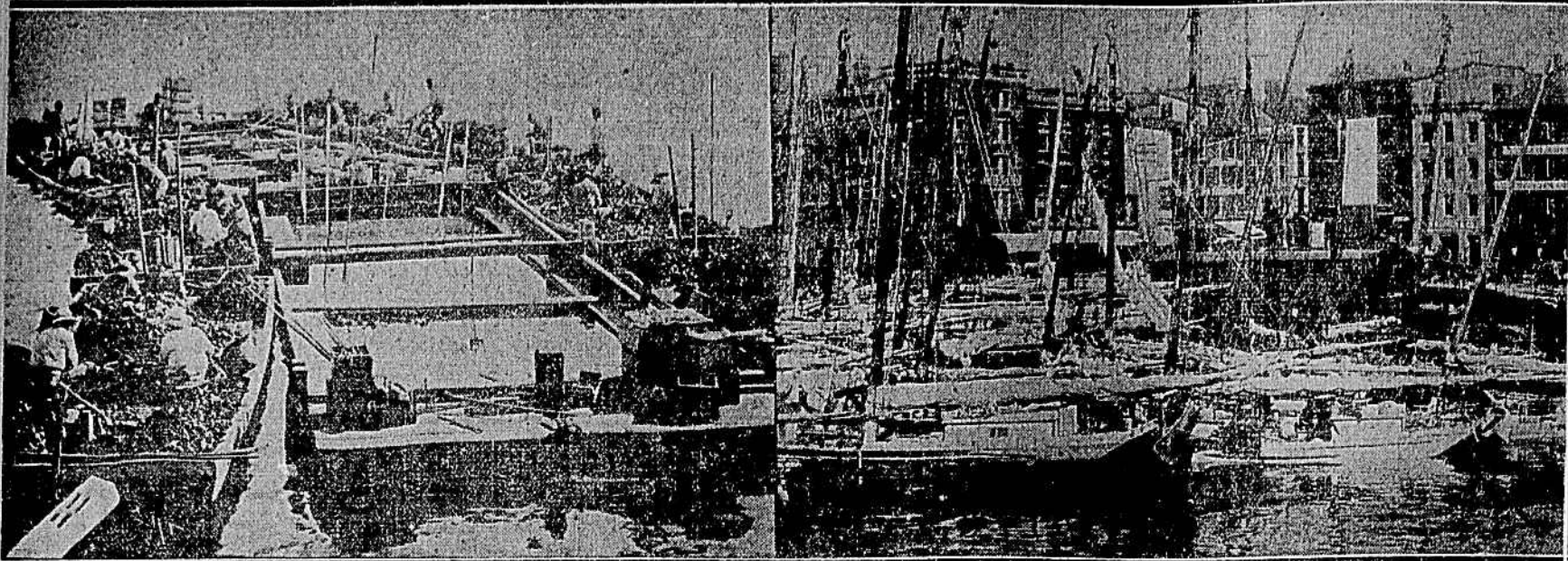
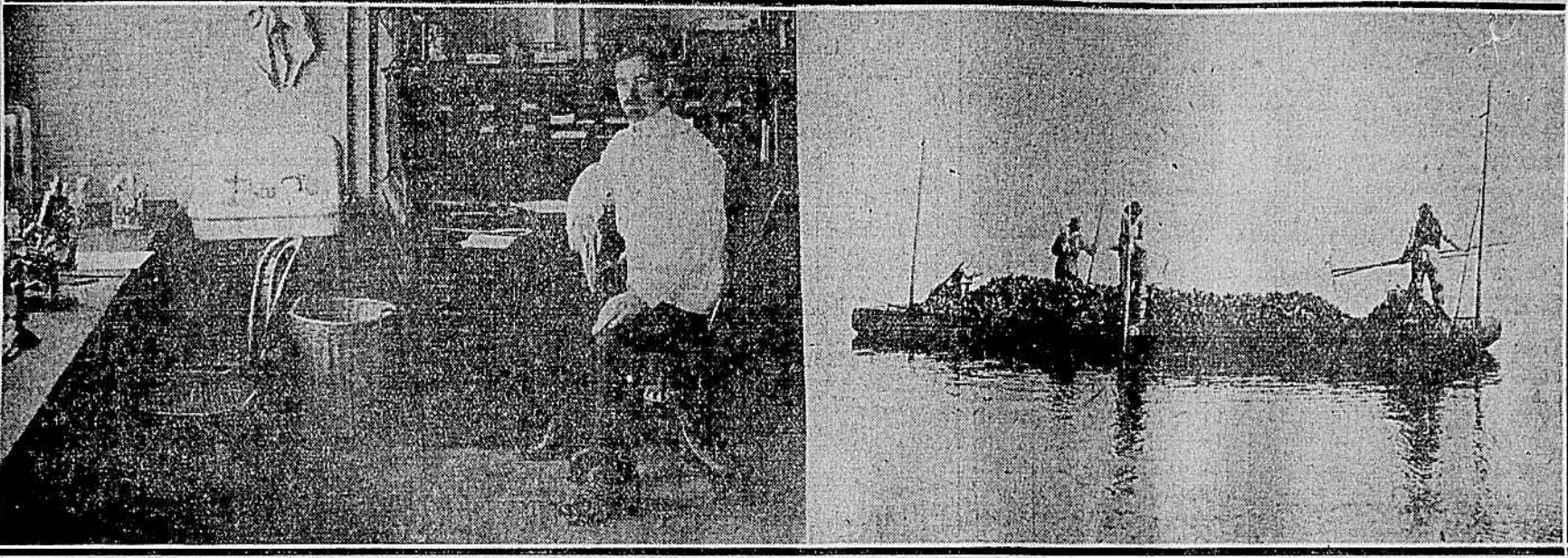


Viley Takes Up the Oyster---Devises Third Degree Ordeal to Learn Its Past---Interesting Tests for Pollution Made



FLOATING OYSTERS

WORLD'S BIGGEST OYSTER FLEET, BALTIMORE HARBOR.



DR. GEORGE W. STILES, Torquemada of the Oyster.

TONGING OYSTERS.

BY JOHN ELFRETH WATKINS.
The oyster of interstate commerce at henceforth be very, very good, Dr. Wiley—he will get him. The bad bivalve may sicken and kill tens of his native Commonwealth his heart's content if the local authorities are lax. That would be the sin of the Federal guardian of the food. But woe betide him if he ventures a step over his State's boundary line!

Dr. Wiley has let his army of experts and inspectors mark time hitherto, to give the industry ample opportunity to adopt clean methods and clean equipment. But the armistice has expired and the gauntlet has been flung down before the unclean growers and dealers.

I have just paid a visit to that inner sanctum of Dr. Wiley's bureau where in oysters apprehended as suspicious characters are given the third degree.

The suspects are sent to this inquisitorial chamber by such of the doctor's forty food inspectors scattered about the country as capture the culprits, the ordeal is Dr. George W. Stiles, the bacteriologist chemist of Dr. Wiley's staff. That this inquisitor-general is an adept at his work may be attested by the fact that he has succeeded even in drawing forth the inmost secrets hidden within the black heart

of the clam, which of all creatures of nature is universally recognized as the most secretive, not to say close mouthed.

The suspects are sent up on the respective charges of having been "drunk," "soaked" or polluted. The first two terms smack very suspiciously of slang, but are legitimate words, admitted even to the vocabulary of science. The penalty for those two offenses is branding, while those finally found guilty of the third are condemned. And the whole procedure is conducted in strict compliance with two recent edicts of the United States board of food and drug inspection respecting shellfish.

The inquisitor General at Work.
I watched Dr. Stiles go through the modus operandi of his tests. He sat at a long, broad counter and had before him a rack of glass tubes corked with cotton, a row of little flasks very like the individual decanter in which your cold tea is brought to you when you take it sitting and another row of glass saucers with glass lids.

Now, the succulent bivalve is just like his cousin at the other end of the Darwinian chain in that he can be judged by his liquor and, furthermore, in that the more he is in liquor the more he will disclose regarding his dark past. In other words, more evidence of pollution is to be found in oyster liquor than in oyster meat.

Explaining this, Dr. Stiles poured the liquor taken from a suspect into one of his little decanters and to this he added water. After shaking the solution exactly twenty-five times—the laboratory rule—and regulations prescribe—he turned to a little stove at his left, took off a vessel, and from it poured into each of the glass saucers a liquid resembling broth. This concoction, which he called "agar agar," and which he explained to be a product of sea-weed added to beef broth, quickly hardened, forming a yellow stratum at the bottom of the receptacle. Some clever bacteriologist once discovered that microbes take to this broth as greedily as youngsters take to sweetmeats, and ever since it has been the favorite medium for growing germs in incubators.

With a little glass tube, graduated along the side, Dr. Stiles measured out a minute quantity of his oyster liquor solution and dropped an equal amount into each saucer of cold broth. Then he put the circular lids on the saucers and placed them in his incubator, where they were to be left at blood heat until the germs—if present—might grow into the colonies in which they gather when in a flourishing condition.

These colonies—as shown to me in other glass saucers that had been left in the incubator for some time—appear as round spots, sometimes an eighth of an inch across, sometimes a larger amount into each saucer of cold broth. Then he put the circular lids on the saucers and placed them in his incubator, where they were to be left at blood heat until the germs—if present—might grow into the colonies in which they gather when in a flourishing condition.

But what interests him most is to find how many of these colonies have been formed by a microbe known as the "colon bacillus," and so called, not because it resembles the colon of punctuation, but because it is a prolific and natural inhabitant of the colon or large intestine of man and beast. His trained eye generally identifies its colonies without further test, but to make sure he draws, with a blue pencil, upon the bottom of the glass saucer a ring about each suspected colony. Next he takes each marked colony up with the point of a sterilized platinum needle and transplants it in a tube of ox bile mixed with the agar agar—a concoction in which the colon bacillus will flourish after the manner of the proverbial green bay tree. And if it does so flourish the bacteriologist has before him indisputable evidence that the oysters under investigation have been polluted by fecal matter.

Thus, the colon microbe is accepted as the index to pollution, for it can come from no other source than the one mentioned. Samples of water flowing over oyster beds and oyster floats are also being taken and similarly exam-

ined in this same laboratory. Also in their case the appearance of the colon bacillus determines whether oysters taken from such waters are polluted.

Adulterating Oysters.

Something was said above about oysters being "drunk." It is a general practice of the growers to "drink" their oysters by taking them from salt into brackish water, which boasts them to the degree of brackishness, effecting to their superficial appearance. In various localities this process of "drinking"—i. e., letting the oysters drink—is also called "floating," "plumping," or "fattening." The oysters just after having been tonged or dredged are placed upon "floats" or shallow rafts and thus carried to the mouths of streams where the influx of fresh water dilutes the natural salt water to the degree of brackishness effecting the greatest amount of bloating.

Oystermen practicing this method will tell you that they resort to it merely to clean their bivalves. Dr. Wiley demands that this "cleaning" be done upon floats placed in "water of a saline content equal to that in which oysters will grow to maturity."

The label "floats oysters" must hereafter appear on all packages of such mollusks placed in interstate commerce after having been thus put in brackish water. He holds that the people are entitled to have their bivalves as just as nature fashioned and flavored them, and that it is as great an offense to put fresh water into oysters as it is to add it to milk.

A careful chemical test easily reveals the extent to which an oyster has been thus floated, by showing its proportion of water, solids, salt, etc. External appearance also gives the clue, for oysters taken directly from salty water are flatter than those given the fresh water cure. Some day, perhaps, the gullible public will be educated to the fact that the flat oyster has just as much tissue and as much nourishment as his bloated brother formerly of equal size.

Polluted When Bloated.

But a worse offense than adulteration lies at the door of the oyster dealer. The streams at whose mouths his floats are placed are commonly the outlets of pollution from cities and villages built upon their banks. Dr. Wiley has had Dr. Stiles in the field making a sanitary survey of the principal oyster beds and shucking stations along the Atlantic and Gulf coasts, and that bacteriologist has come back with an interesting collection of photographs showing sewer outlets directly over oyster beds, the dumping of garbage into streams flowing past floats and filthy "shucking houses" without plumbing leaning over waters in which oysters are being floated.

The oyster is not a scavenger, according to Dr. Stiles, although the popular notion is to the contrary. It must drink the water that comes to it, and when that water is polluted it is powerless to move into a medium that tastes better. From 90 to 95 per cent. of its natural food consists of an order of algae known as diatoms, and which are sometimes used as polishing powder. In addition to these the oyster plants and the microscopic forms of animal and vegetable life found in clean water.

Now the amount of rise and fall in the tides, the prevailing winds, the amount of sunshine, the extent of the rainfall, and the proportion of salt in the water, also its depths and currents, are all being studied by Dr. Stiles in connection with pollution. They all combine to make the water of the oyster beds good or bad, and each locality has its own peculiar combination of such forces.

Further Bloating After Shucking.
The gambit that the poor oyster must run is indeed a long one. First polluted by advancing civilization, he is next "floats" by his grower. Then the boatman who buys him "drinks" him some more by dumping him into shallow water where he lies and bloats further till the next tide starts on the ebb. After that the shucker takes hold of him, and after ripping off his shell subjects him to a new indignity, which the trade calls "soaking," and a second dose of which he often gets in

Stop Women And Consider

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The present Mrs. Pinkham, daughter-in-law of Lydia E. Pinkham, was for years under her direction, and has ever since her decease continued to advise women.

Many women suffer in silence and drift along from bad to worse, knowing well that they ought to have immediate assistance, but a natural modesty causes them to shrink from exposing themselves to the questions and probable examinations of even their family physician. Such questioning and examination is unnecessary. Without cost you can consult a woman whose knowledge from actual experience is great.

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Women suffering from any form of female weakness are invited to promptly communicate with Mrs. Pinkham at Lynn, Mass. All letters are received, opened, read and answered by women. A woman can freely talk of her private illness to a woman; thus has been established this confidence between Mrs. Pinkham and the women of America which has never been broken. Never has she published a testimonial or used a letter without the written consent of the writer, and never has the company allowed these confidential letters to get out of their possession, as the hundreds of thousands of them in their files will attest.

Out of the vast volume of experience which Mrs. Pinkham has to draw from, it is more than possible that she has gained the very knowledge needed in your case. She asks nothing in return except your good will, and her advice has helped thousands. Surely any woman, rich or poor, should be glad to take advantage of this generous offer of assistance. Address Mrs. Pinkham, care of Lydia E. Pinkham Medicine Co., Lynn, Mass.

the establishment of the retailer.

By "soaking" is meant the adding of fresh water to unshelled oysters. Here again the ostensible purpose is to cleanse for washing, but Dr. Stiles found that many were allowed to "soak" over Sunday. But the board of food and drug inspection, of which Dr. Wiley is the chairman, has just ruled that this washing must not continue longer "than the minimum time for washing and chilling."

Even while dashing over the continent in the fast express trains delivering them to western markets a further blot was being added by placing ice in the cans in direct contact with the bivalves. The fresh water from this they greedily drank until the new regulation went into effect, requiring the ice to be placed in an outer receptacle, a precaution aimed especially against pollution, as samples of ice found in contact with oysters in transit have been found to contain surprising amounts of filth.

The containers in which oysters are handled must hereafter be sterilized, and live steam under pressure is being adopted by enterprising oystermen. Dr. Stiles found the typical oyster house to have cobwebs dangling from the ceiling; dirt, filth and flies galore. He is advising their displacement by structures of stone, brick or cement, which can be readily cleaned, and their equipment with proper toilet facilities.

Detection, Seizure and Arrest.

The food inspectors are bobbing up unexpectedly at various oyster beds or oyster wharves, taking their samples and sending them either to Washington or the nearest of the twenty-one branch food laboratories now scattered over our entire domain. If the laboratory test shows pollution or adulteration, they go into courts and have the product seized. The owner can then appear to defend them at a hearing at which the bacteriologist making the test will testify as an expert witness. If this evidence is strong enough the

court orders the oysters condemned, and the United States marshal proceeds to destroy them. Criminal action may then be taken against those responsible. In fifteen cases criminal prosecution has already been recommended since this season opened.

The oystermen have been given months in which to get ready for the full operation of the law. At first many of them claimed that the reforms were impossible, but now most of them are co-operating, although a few have to be driven. Those who are entering realize that the improved conditions, by restoring public confidence in the oyster, will vastly increase its consumption by the people.

One progressive grower of this class—one of the best known system of the east—has lately gone so far as to install a bacteriological laboratory in his warehouse. Under midnight oil he is pouring over text books on the science of germs, and already brother oystermen are coming to him from miles around, open-eyed and open-earred. And the State shellfish commissions are commencing to institute such laboratories, while in some Commonwealths they have lately excluded certain oyster beds showing evidences of pollution.

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"Facts About Cancer"

A booklet published by the Leach Sanatorium, of Indianapolis, Indiana, contains interesting information about the cause of cancer. It tells what to do for pain, bleeding, odor, etc., and advises how to care for the patient. The booklet is sent free to those interested who write for it, mentioning this paper.



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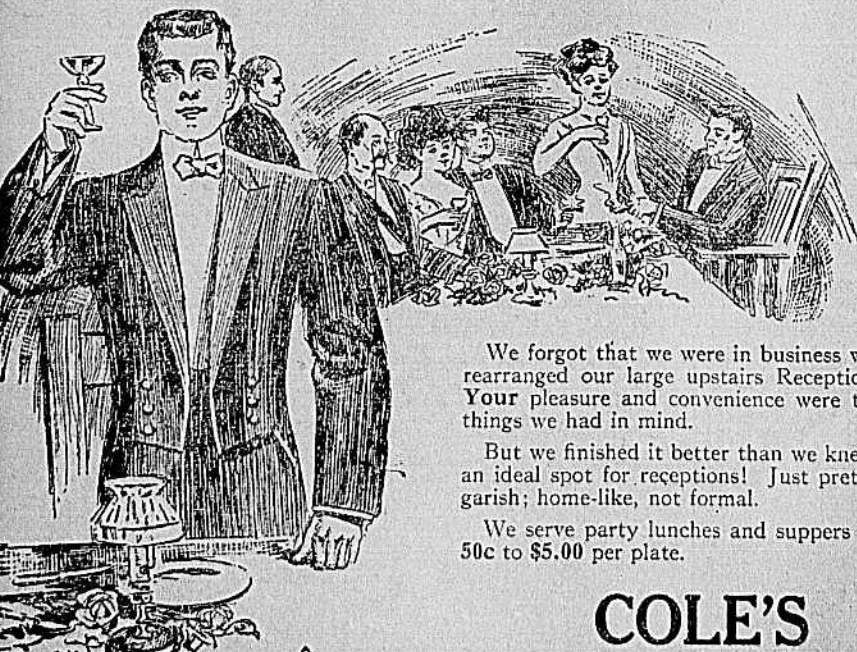
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Remedy That Cures Indigestion Free

The reader who will take the time to look over the accompanying testimonials must admit that a remedy about which such words can be written—and they are honestly written—must be a marvelous remedy indeed. We have from time to time printed letters regarding Dr. Caldwell's Syrup Pepsin, in which the writers said they had lived on crackers and milk for weeks until they took Syrup Pepsin and were cured of their indigestion. Syrup Pepsin cures indigestion and such troubles as constipation, biliousness, belching, gas on the stomach, heartburn, etc., because it is in every sense a scientific preparation. It is effective but yet mild, and it tastes pleasantly. It also contains tonic ingredients that strengthen the stomach and bowel muscles, so that in a short time they do their work again naturally. It is a laxative tonic of genuine merit, and yet perfectly harmless to an infant. Thousands of mothers buy it for their children. Perhaps it would be best for you to send for a free sample bottle first, and then, after you have used it and become convinced it is the remedy you have been looking for, buy it of your druggist at fifty cents and one dollar a bottle. Thousands have begun the use of Syrup Pepsin by first beginning on a sample bottle, which was sent free.



Look for This Picture on Package



Publicity Bureau of Richmond



The following are some extracts from letters Dr. Caldwell has received:

"I have traveled all over the country for my health, have tried changes of climate, different waters, different doctors, but never could get rid of my indigestion. Finally I couldn't eat the lightest food without it nearly killing me. One lucky day I saw a reference to Syrup Pepsin, and determined to try it. I had tried everything else, so why not this? I did, and the result is that I am a cured man today, able to do as big a day's work as I ever did, and sound and well in every way. I believe Syrup Pepsin did it, and hence willingly recommend it."—William Lee, 224 18th Street, Cairo, Ill.

"Your free sample bottle of Syrup Pepsin was a great fortune to me. I got to the point where I could not trust myself to eat anything but milk toast, oatmeal and such things. Since I am taking Syrup Pepsin I can eat most anything with a relish, and do not experience any misery in my stomach as I did for two years past. I will always have it in the house hereafter, for it has done me more genuine good than all the other things combined I have taken in the past three years."—J. E. Bickel, S. 19th Street, Terre Haute, Ind.

"I received your sample bottle O. K. I was troubled with indigestion and heartburn, and could not eat anything without being troubled. But after taking the Syrup Pepsin I could eat anything without any bad effects, so I bought a large bottle. I would not be without it for anything."—John Wallace, Austin, Texas.

"The sample bottle of Syrup Pepsin received. The result of the trial proved satisfactory, and am now using a large bottle purchased from our druggist. I find it to be a good medicine for indigestion."—Mrs. J. S. Stanley, Seymour, Mo.

"I received your free sample of Syrup Pepsin, which I took according to directions, and can say it has done me more good than anything else. I have bought one bottle and used it."—T. W. Worthing, Forsyth, Ga.

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